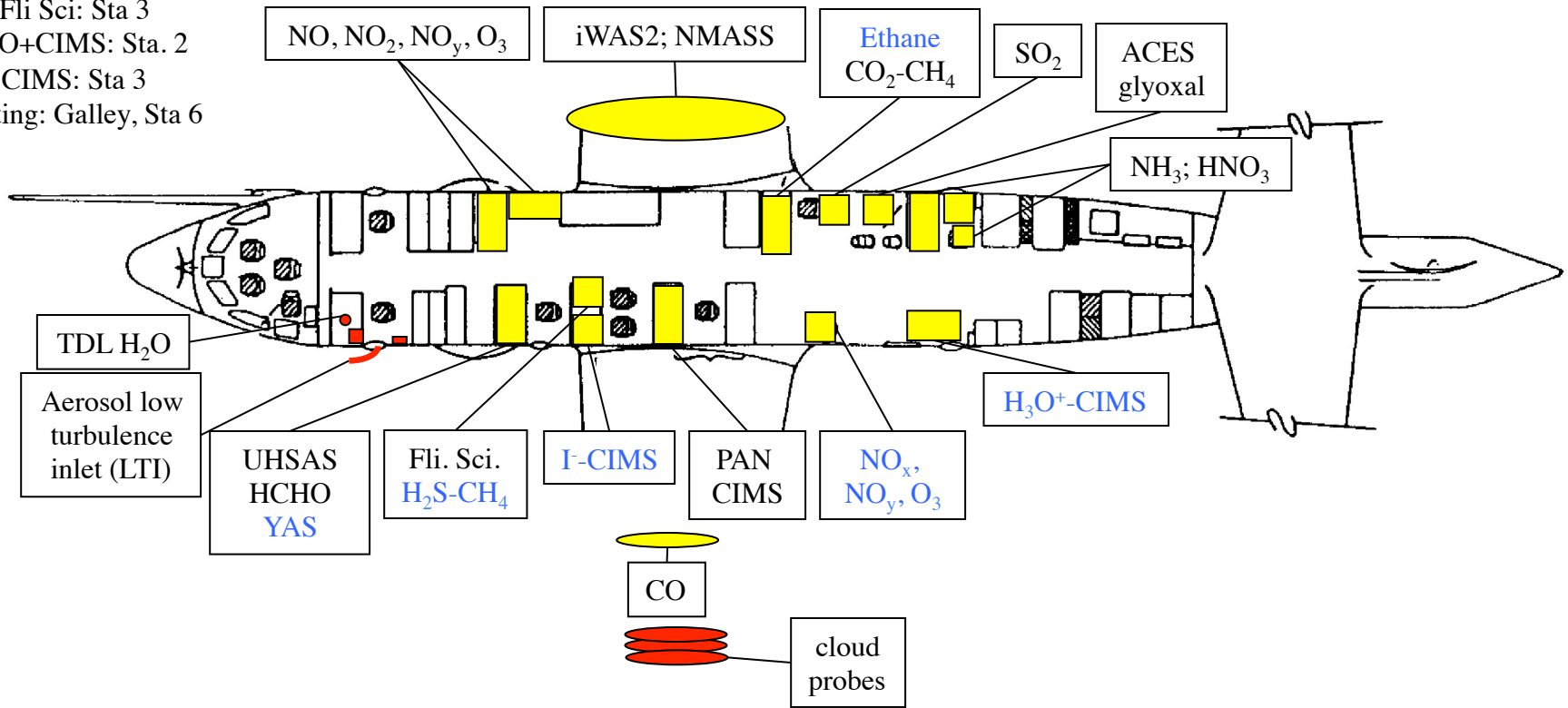


N43RF Payload SONGNEX 2015

NOAA ESRL CSD version final 03-16-2015

Operator seats:
 NO_yO₃: C3X
 Fli Sci: Sta 3
 H3O+CIMS: Sta. 2
 CIMS: Sta 3
 rotating: Galley, Sta 6



Location	Abbreviation	Full name	Description	PI	Affiliation
Sta. FD	LTI	Low Turbulence Inlet	decelerating inlet to provide sample air to aerosol instruments in fuselage	Chuck Brock	NOAA/ESRL
Sta. 2	UHSAS	ultrahigh sensitivity aerosol size spectrometer	counts and sizes 0.07-1.0 μm aerosol particles; samples from LTI	Chuck Brock	NOAA/ESRL
Sta. 2	YAS	Yale Adsorbent Sampler	Adsorbent cartridge sampling for large hydrocarbons	Drew Gentner	Yale University
Sta. 2	ISAF	Laser Induced Fluorescence	formaldehyde (HCHO)	Frank Keutsch Tom Hanisco, Glen Wolfe	Univ. of Wisconsin NASA
Sta. 3	H ₂ S-CH ₄	Picarro	H ₂ S and CH ₄ with IR laser absorption in a high-finesse cavity		Environ. Canada
Sta. 3	I- CIMS	acid Chemical Ionization Mass Spectrometer	organic and inorganic acids using chemical ionization mass spectrometry with acetate as reagent ion	Joel Thornton	University of Washington
Sta. C3X	NO/NO ₂ /NO _y /O ₃	nitrogen oxides and ozone	chemiluminescence detection with photolytic or catalytic conversion	Steve Sjostedt, Tom Ryerson	NOAA/ESRL
Sta. 4	PAN CIMS	PeroxyAcyl Nitrate Chemical Ionization Mass Spectrometer	PANs using chemical ionization mass spectrometry with I ⁻ as reagent ion	Patrick Veres, Jim Roberts	NOAA/ESRL
Sta. 5	ethane	ethane	Aerodyne ethane analyzer	Jeff Peischl, Tom Ryerson	NOAA/ESRL
Sta. 5	CH ₄ , CO ₂	Picarro	CO ₂ and methane with IR laser absorption in a high-finesse cavity	Jeff Peischl, Tom Ryerson	NOAA/ESRL
Sta. 6a	SO ₂	sulfur dioxide	SO ₂ using pulsed UV fluorescence	John Holloway	NOAA/ESRL
Sta. 6b	ACES	Airborne Cavity Enhanced Spectrometer	Glyoxal using Cavity Enhanced Absorption Spectroscopy	Kyle Zarzana, Rebecca Washenfelder	NOAA/ESRL
Sta. 7	HNO ₃ CIMS	HNO ₃ Chemical Ionization Mass Spectrometer	nitric acid using chemical ionization mass spectrometry with SiF ₅ ⁻ as reagent ion	Andy Neuman	NOAA/ESRL
Sta. 7	NH ₃ CIMS	NH ₃ Chemical Ionization Mass Spectrometer	Ammonia using chemical ionization mass spectrometry with the protonated acetone dimer as reagent ion	Scott Eilerman	NOAA/ESRL
Dual passenger	NO _x CARD	NO _x cavity ringdown absorption spectrometer	NO _x /NO _y /O ₃ in laser absorption in high-finesse cavities	Robert Wild	NOAA/ESRL
Sta. 8	H ₃ O+CIMS	H ₃ O+ Chemical Ionization Mass Spectrometer	various VOCs using chemical ionization mass spectrometer using H ₃ O ⁺ as reagent ion	Bin Yuan, Abby Koss	NOAA/ESRL
AMPS pod	NMASS	Nucleation Mode Aerosol Size Spectrometer	0.004-0.07 nm aerosol particles number and size	Chuck Brock	NOAA/ESRL
AMPS pod	iWAS2	Whole Air Sampler	hydrocarbons, alkyl nitrates and halocarbons using canister samples for immediate GC-MS analysis	Jessica Gilman, Brian Lerner	NOAA/ESRL
CO pod	CO	carbon monoxide	CO using vacuum UV resonance fluorescence	John Holloway	NOAA/ESRL